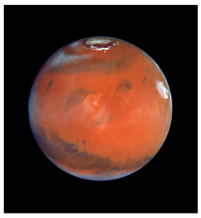
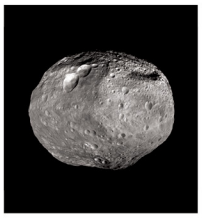
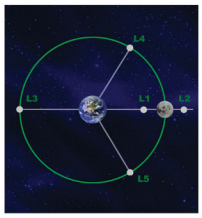
National Aeronautics and Space Administration

Space Launch System
Highlights

June 2014




NASA Turns Down the Volume on Rocket Noise through SLS Scale Model Acoustic Testing

A 5-percent scale model, including solid rocket motors, of the SLS is ignited to test how low- and high-frequency sound waves will affect the rocket on the launch pad. The data collected from the tests will be used to help direct and verify the design of the rocket's sound suppression system. For the full story and videos, click **here**. *(NASA/MSFC)*

SLS Model Undergoes Wind Tunnel Testing at NASA Langley

The aerodynamics team at NASA's Langley Research Center recently tested a model of the 70-metric-ton SLS. The model was tested in Langley's Transonic Dynamics Tunnel, where engineers measured unsteady aerodynamic pressures and forces exerted on the SLS vehicle. Wind tunnel testing will help engineers at NASA's Marshall Space Flight Center fine tune the performance of the vehicle to better understand how it will fly on its first flight. *(NASA/Langley)*

SLS Team Says Farewell to NASA Leader Dan Dumbacher

Dan Dumbacher, left, deputy associate administrator for Exploration Systems Development at NASA, addressed SLS team members at a farewell event held in his honor June 18 at the Marshall Center. Dumbacher left NASA to take a faculty position at Purdue University in West Lafayette, Indiana. "It has been an honor to work with all of you," Dumbacher said. "You guys will get SLS in place and take us all beyond low-Earth orbit." *(NASA/MSFC)*

Spaceflight Partners: Cytec Industries Inc.

EDITOR'S NOTE: Every month, SLS Highlights turns the spotlight on one of the industry partners helping to create the largest rocket ever built for human space exploration. In this issue, we profile Cytec Industries Inc. of West Paterson, New Jersey.

NASA's Space Launch System (SLS) will be the most powerful rocket ever built and will provide a heavy-lift capability enabling a variety of missions to deep space. Cytec Industries materials are used by ATK to manufacture the nozzles of its solid rocket boosters that provide the initial boost for the first two minutes of the rocket's ascent into space.

SLS and the Orion spacecraft will provide astronauts with the ability to embark on a wide variety of missions, including to an asteroid and ultimately to Mars.

ATK is planning a static firing of the full-scale five-segment motor later this year, which will demonstrate a number of things, including the precision of the Cytec materials used in the nozzle.

Cytec Industries Inc. materials are used by ATK in the manufacture of the nozzles of its solid rocket boosters that provide the initial boost for the first two minutes of the rocket's ascent into space. *(ATK)*

Welding Tools Being Put to Work at Michoud

A barrel is lifted off the Vertical Weld Center (VWC) at NASA's Michoud Assembly Facility in New Orleans. The VWC is a friction-stir-weld tool for wet and dry structures on the SLS core stage. It will weld barrel panels together to produce whole barrels for the two pressurized tanks, the intertank, the forward skirt and the aft engine section. *(NASA/MAF)*

A completed dome on a holding fixture at the Plug Weld Tool (PWT). The PWT is a friction-stir-weld tool used to complete circumferential friction stir welds in the production of dome assemblies for SLS core stage cryogenic tanks. *(NASA/MAF)*

Technicians at NASA's Michoud Assembly Facility in New Orleans lower a qualification ring for the SLS core stage. The ring was made using the Segmented Ring Tool, which uses a friction-stir-weld process to produce segmented support rings for the core stage. The rings connect and provide stiffness between domes and barrels. *(NASA/MAF)*

SLS On the Road…

SLS Program Manager Todd May shares progress on the rocket June 9 at the Exploration Systems Development (ESD) Update at the Huntsville Museum of Art. *(NASA/MSFC)*

The inflatable SLS was a “home run” at the annual Congressional Baseball Game June 25 at Nationals Stadium in Washington. (NASA/MSFC)

A future explorer proudly displays his jetpack at “NASA on the Square” in downtown Huntsville, Alabama. The June 21 event showcased programs and projects at the Marshall Space Flight Center, including the SLS and Orion spacecraft. *(NASA/MSFC)*

SLS Program Manager Todd May, left, speaks to a crowd about NASA’s next great rocket June 19 at the U.S. Space & Rocket Center. The speech was part of the “Pass the Torch” inspiration series, which features professionals from industry, academia and government speaking about their work in space, aeronautics, engineering, science research and other related fields. “We have America’s next great ship,” May said. “It’s called the Space Launch System. And it’s taking shape as we speak.” *(NASA/MSFC)*

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